

WHAT IS CLAIMED IS:

- 1 1. An EMI/RFI shield integrally formed in a thermoformable sheet,
2 wherein portions of the thermoformable sheet are removed around a periphery of the
3 EMI/RFI shield, wherein the portions of the thermoformable sheet that are not removed
4 integrally connect the EMI/RFI shield to a remainder of the thermoformable sheet.
- 1 2. The EMI/RFI shield of claim 1 wherein the EMI/RFI shield comprises
2 at least one layer of a conductive material.
- 1 3. The EMI/RFI shield of claim 2 wherein the EMI/RFI shield is multi-
2 compartmentalized.
- 1 4. The EMI/RFI shield of claim 2 wherein the EMI/RFI shield defines a
2 single compartment.
- 1 5. The EMI/RFI shield of claim 2 wherein the layer of conductive
2 material comprises at least one layer of tin, aluminum, copper, and nickel.
- 1 6. The EMI/RFI shield of claim 5 wherein the conductive material
2 comprises a vacuum metallized first layer of tin and an electroplated second layer of tin.
- 1 7. The EMI/RFI shield of claim 1 wherein the formable polymer sheet
2 comprises a recycled, conductively coated polymer EMI/RFI shield that has been
3 mechanically disintegrated and then recombined back into the formable polymer sheet.
- 1 8. The EMI/RFI shield of claim 7 where the mechanically disintegrated
2 EMI/RFI shields comprise a metallized film comprising one of a painted film, a vacuum
3 metallized film, and an electroless plated film.
- 1 9. The EMI/RFI shield of 1 wherein the EMI/RFI shield comprises a top
2 surface, a plurality of sidewalls extending at an angle from the top surface and a flange
3 around a periphery of the side walls, wherein the flange and the top surface define
4 substantially parallel planes.

1 10. A reel of material for in-line processing equipment, the reel
2 comprising:
3 a sheet of material;
4 a spool that receives the sheet of material; and
5 a plurality of EMI/RFI shields attached to the sheet of material that is rolled on
6 the spool.

1 11. The reel of material of claim 10 wherein the EMI/RFI shields are
2 integrally attached to the sheet of material.

1 12. The reel of material of claim 11 wherein the EMI/RFI shields are
2 attached to the sheet of material with tabs of material.

1 13. The reel of material of claim 10 wherein the EMI/RFI shields comprise
2 at least one layer of conductive material.

1 14. The reel of material of claim 10 wherein the EMI/RFI shields and sheet
2 of material comprise recycled material.

1 15. An EMI/RFI shield integrally attached to a formable polymer sheet
2 formed by a method comprising:
3 shaping the formable polymer sheet to create at least one EMI/RFI shield;
4 applying a conductive layer to the formable polymer sheet; and
5 removing a portion of the material around a periphery of the conductive
6 EMI/RFI shield so as to leave the EMI/RFI shield integrally attached to a remainder of the
7 formable polymer sheet.

1 16. The EMI/RFI shield of claim 15 wherein the shaping is carried out
2 before the applying the conductive layer.

1 17. The EMI/RFI shield of claim 15 wherein the shaping is carried out
2 after applying the conductive layer.

1 18. The EMI/RFI shield of claim 15 further comprising applying a gasket
2 to the EMI/RFI shield.

1 19. The EMI/RFI shield of claim 15 comprising forming the polymer sheet
2 from recycled material that comprises conductive material.

1 20. The EMI/RFI shield of claim 15 wherein removing a portion comprises
2 leaving tabs of material that integrally connect the EMI/RFI shield to the formable polymer
3 sheet.

1 21. The EMI/RFI shield of claim 5 wherein the conductive material
2 comprises a vacuum metallized first layer of tin and an electroplated second layer of nickel.

1 22. The reel of material of claim 12 wherein the tabs of material are
2 perforated.